# ECE-345-001 (Fall 2020)

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## **Review Test Submission: Quiz 4.7**

| User         | David Kirby                                            |
|--------------|--------------------------------------------------------|
| Course       | Intro to Control Systems - Fall 2020 Section Group I67 |
| Test         | Quiz 4.7                                               |
| Started      | 9/22/20 3:36 PM                                        |
| Submitted    | 9/22/20 3:44 PM                                        |
| Status       | Completed                                              |
| •            | 4 out of 4 points                                      |
| Time Elapsed | 8 minutes                                              |
|              | ***************************************                |

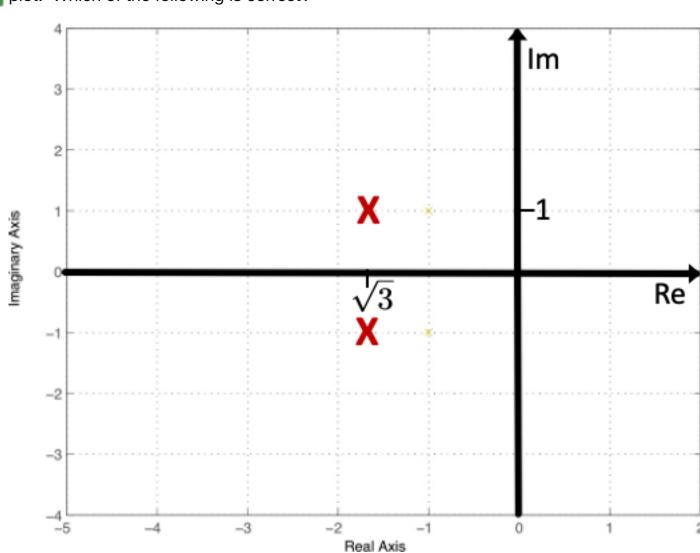
Results Displayed Submitted Answers, Incorrectly Answered Questions

#### **Question 1**

1 out of 1 points



Compute the damping ratio and natural frequency for the system whose poles and zeros are shown in the attached plot. Which of the following is correct?



Selected Answer:

$$\zeta = \sqrt{3}/2, \omega_n = 2$$

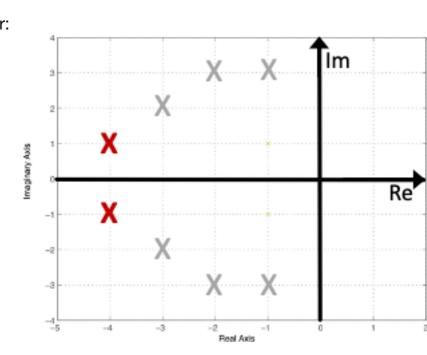
#### **Question 2**

1 out of 1 points



Which of the following pole pairs have a damping ratio closest to 1? (All four pole pairs are plotted to make comparisons easy, however, the pole pair under consideration is bold and red; others are grey.)

Selected Answer:



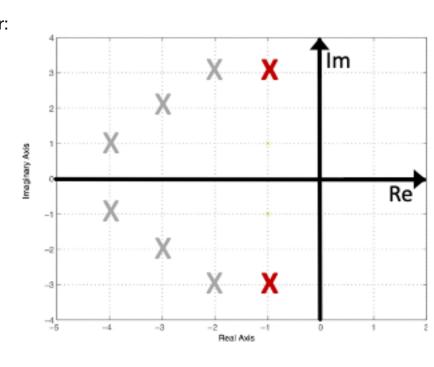
### **Question 3**

1 out of 1 points



Which of the following pole pairs (color-coded) have the smallest damping ratio? (All 4 pole pairs are plotted to make comparisons easy, however, the pole pair under consideration is bold and red; others are grey.)

Selected Answer:



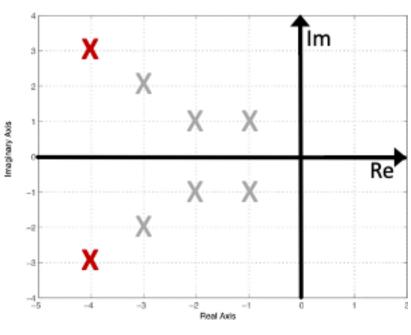
### **Question 4**

1 out of 1 points



Which of the following pole pairs (color coded) have the highest natural frequency? (All four pole pairs are plotted to make comparisons easy, however, the pole pair under consideration is bold and red; others are grey.)

Selected Answer:



Wednesday, September 30, 2020 11:05:33 AM MDT